

Network With Packet Traffic Scheduling In Response To Quality Of Service and Index
Dispersion Of Counts

ABSTRACT OF THE DISCLOSURE

[0030] A network system (10), comprising a plurality of nodes (ER_x , CR_x). Each node in the plurality of nodes is coupled to communicate with at least one other node in the plurality of nodes. Each node of the plurality of nodes comprises a plurality of queues (32_x) and is operable to perform the steps of receiving a plurality of packets and, for each received packet in the plurality of packets, coupling the received packet into a selected queue in the plurality of queues, wherein a respective selected queue is selected in response to the respective received packet satisfying one or more criteria. Each node of the plurality of nodes is also operable to perform the step of assigning a weight (W_x) to each respective queues in the plurality of queues. Each weight assigned to a respective queue in the plurality of queues is responsive to quality requirements for each packet in the respective queue and to a ratio of packet arrival variance in the respective queue and a mean of packets arriving to be stored in the respective queue during a time interval for minimizing the overall network traffic burstiness.